Box Plot Examples

Puzzle #1: Below is a distribution table for the scores on an exam for a large upper level statistics class. The right-hand column shows the percentage of scores in each interval. The lowest score was 0, the second-lowest was 6, and the highest score was 100. To draw a box plot of the data you'd have to find the median, Q1, and Q3:

Median= _____

Q1 =_____

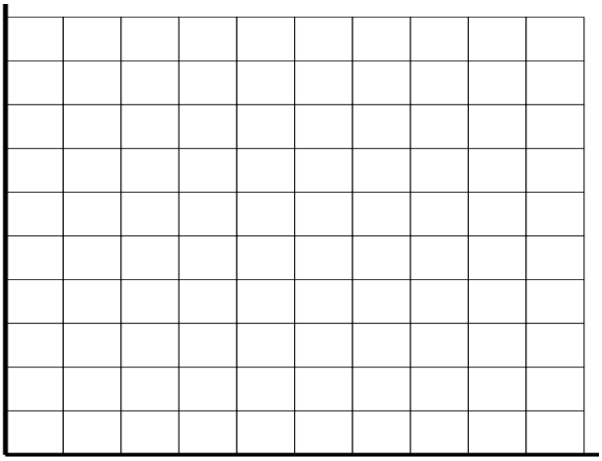
Q3= _____

The middle 50% of the scores lie between _____ & _____.

List all outliers _____

Score	%
0-50	25
50-60	10
60-70	15
70-80	25
80-90	20
90-100	5

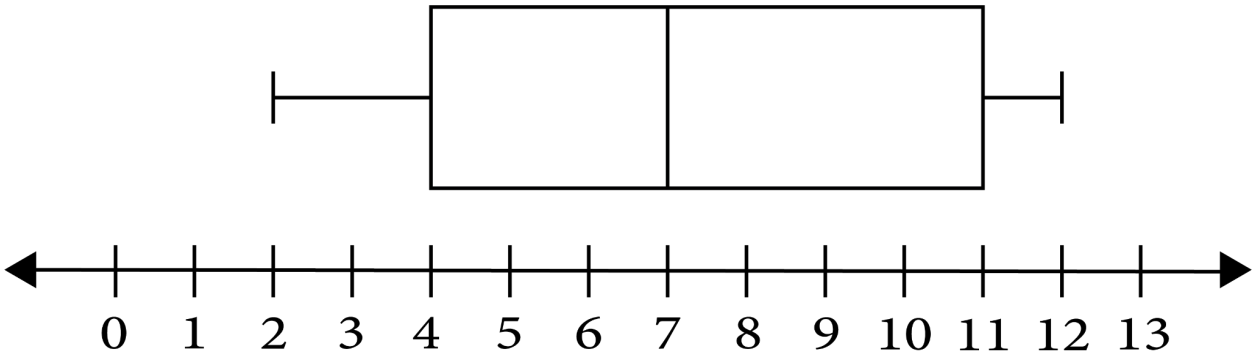
Draw a boxplot of the exam scores below:



*If the dataset has no outliers, the ends of the whiskers represent the minimum and maximum values of the dataset.

* If the dataset does have outliers, the outliers are plotted as single dots & the ends of the whiskers represent the highest and lowest data points that are not outliers (within 1.5*IQR of Q1 and Q3).

Puzzle #2: Answer the following questions about the horizontal boxplot below:



a) What is the value of Q3? _____

b) What is the value of the median? _____

c) What percent of data is less than 4? _____%

d) Which interval has a greater % of the data: 4-7 or 7-11 or are they the same?_____

e) What is the range of the data represented in the boxplot above? _____

f) Are there any outliers in the boxplot above? _____